JS 6/2/21
RJA 2/18/22

INITIAL REVIEW ENGINEERING REPORT [redacted]
PMN: 19-0009

Post-Focus Draft Revision 2 2/14/2019
ENGINEER: Austin \ AR
PV (kg/yr): [redacted] Import Only
Revision Notes / Assessment Overview: [redacted]

SUBMITTER: Allnex USA Inc.

USE: Corrosion protection additive in resin for cathodic electrodeposition dip coating for metal substrates.
Amine FGEW = 777 by charge, 782 by termination.
Formaldehyde FGEW = 981 by charge, 1565 by termination.
Combined FGEW = 434 by charge, 521 by termination.
Analogue [redacted]

OTHER USES: Analogue [redacted]

MSDS: Yes Label: No

Gen Eqpt: [redacted]

Respirator: [redacted]

Health Effects: Causes skin irritation. Causes serious eye irritation.

TLV/PEL:
2-Butoxyethanol 50 ppm 240 mg/m3 TWA OSHA (PEL)

CRSS (11/01/2018):
Chemical Name: [redacted]

S-H20: 0 g/L @
VP: 1.0E-6 torr @
MW: 3129.00 1.20%<500 5.70%<1000
Physical State and Misc CRSS Info:
Neat: [redacted] Mfg: NK: Import Proc/Form: [redacted]
coating formulation End Use: Solid: [redacted]
coating. NAVG MW = 3129 with 1.2% < 500 and 5.7% < 1000 by GPC.
Submitted Properties: WS = Soluble; Density = 1.05 g/cc.
Estimated Properties: VP < 0.000001 torr (Polymer salt); WS = Dispersible (Polymer salt).
Amine FGEW = [(130.23)(100)]/[(8.38)(2)] = 777 by charge.
Amine FGEW = NAVG/4 = 782 by termination.
Formaldehyde FGEW = [(30.03)(100)]/(3.06)(1)] = 981 by charge.
Formaldehyde FGEW = NAVG/2 = 1565 by termination.
Combined FGEW = 1/[(1/777) + (1/981)] = 434 by charge.
Combined FGEW = 1/[(1/782) + (1/1565)] = 521 by termination.
The structure as drawn on page 1 of this report has a molecular weight of 1162 g/mole.

Consumer Use: No
SAT (concerns) :
Related Cases and Misc SAT Info:
Same as [redacted].
Analogues: [redacted]
Migration to groundwater: Negligible
PBT rating: P0B0T0
Health: Other
Eco: 3 Water (All releases to water with a CC = 13 ppb)

OCCUPATIONAL EXPOSURE RATING: [redacted]

NOTES & KEY ASSUMPTIONS:
Generated by the 09/30/2013 version of ChemSTEER. Input to ChemSTEER tool includes information from: the PMN submission, physical / chemical properties, relevant past cases, the 2010 ESD on Formulation of UVEB Coatings, and the 1996 GS for Electrodeposition. SAT concerns - all releases to water with a cc=200 ppb. The 1996 GS for Electrodeposition was referenced for the Use. Note, [redacted] The following different submittier similar use [redacted] // USE: This IRER is generally consistent with [redacted] This IRER is generally consistent with [redacted] This IRER assesses drum residuals and filter inefficencies together and assesses 6.5% loss to landfill or incineration per the GS (consistent with [redacted]).

POLLUTION PREVENTION CONSIDERATIONS:
None.
EXPOSURE-BASED REVIEW: No

INITIAL REVIEW ENGINEERING REPORT [redacted]

PMN: 19-0009

PROC: [redacted]

Number of Sites/ Location: 2

unknown site(s)

Days/yr: 250

Basis: Submission estimates that the PMN is processed at 2 sites, [redacted] and [redacted]. RAD assesses 2 sites, 250 days/yr (as consistent with 2010 ESD on Formulation of UVEB Coatings and conservative for unknown sites). ChemSTEER calculates 100 kg PMN/site-batch.

Process Description: [redacted].

ENVIRONMENTAL RELEASES ESTIMATE SUMMARY

IRER Note: The daily releases listed for any source below may coincide with daily releases from the other sources to the same medium.

Water
High End: [redacted]

to:

from: [redacted]

basis: EPA/OPPT Bulk Transport Residual Model, CEB standard 0.2% residual.

Incineration or Landfill
High End: [redacted]

to: Incineration or landfill (per ESD)

from: Equipment Cleaning Losses of Liquids from a Single, Large Vessel

basis: EPA/OPPT Single Vessel Residual Model, CEB standard 1% residual. Submission indicates that [redacted] Due to unknown sites, RAD assesses using standard model to incineration or landfill, per ESD. [redacted]

Incineration or Landfill
Output 2: [redacted]

to: Incineration or landfill (per ESD)

from: Filter Media Release

basis: User-Defined Loss Rate Model. The submission does not address possible filter media releases. The ESD recommends using a loss fraction of 0.04 for radiation curable formulations with unknown pigmentation, as conservative. The ESD estimates the release to incineration or landfill.

RELEASE TOTAL
[redacted] - all sites

OCCUPATIONAL EXPOSURES ESTIMATE SUMMARY

Tot. # of workers exposed via assessed routes: [redacted]

Basis: Submission estimates that a total of [redacted] workers are exposed during processing activities for all sites. The ESD on the Formulation of Radiation Curable Coatings, Inks, and Adhesives conservatively estimates exposure for up to 39 workers per site. It can be conservatively estimated that all workers are exposed during each activity.

Inhalation:

negligible (VP < 0.001 torr); formation of respirable PMN not expected during this operation, per ESD.

Dermal:

INITIAL REVIEW ENGINEERING REPORT [redacted]

PMN: 19-0009

USE: Electro-deposition Primer Coating

Number of Sites/ Location: 2

unknown site(s)

Days/yr: [redacted]

Basis: Submission specifies 2 sites, [redacted]

Process Description: [redacted]

ENVIRONMENTAL RELEASES ESTIMATE SUMMARY

IRER Note: The daily releases listed for any source below may coincide with daily releases from the other sources to the same medium.

Water
Output 1: [redacted]

to: Onsite WWTP (per GS)

from: Treated ultrafiltrate to Onsite WWTP

basis: User-Defined Loss Rate Model. Submission does not specify releases during use of PMN. The GS specifices release of treated ultrafiltrate to onsite WWTP // Estimate for Release = [redacted]

Water
High End: [redacted]

to:

from: Cleaning Liquid Residuals from Totes Used to Transport the Raw Material

basis: EPA/OPPT Bulk Transport Residual Model, CEB standard 0.2% residual.

Incineration or Landfill
Output 2: [redacted]

to: Incineration or Landfill (per GS)

from: Filter Inefficiencies and Container Residue

basis: User-Defined Loss Rate Model. Submission does not specify releases during use of PMN. GS estimates [redacted] to incineration or land, per GS.

RELEASE TOTAL
[redacted] - all sites

OCCUPATIONAL EXPOSURES ESTIMATE SUMMARY
Tot. # of workers exposed via assessed routes: 0
Basis: RAD assumes 10 potentially exposed workers/site, per GS.

Inhalation:

negligible (VP < 0.001 torr); inhalation exposure is not expected, per GS. Further the submission indicates that the application process is fully automated and enclosed.

Dermal: